Corrections of Records of Occurrence of *Peromyscus polionotus* (Wagner) and *P. gossypinus* (LeConte) (Rodentia: Muridae) in the Blue Ridge Province of Georgia

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ABSTRACT—Reexamination of marginal records of *Peromyscus polionotus* and *P. gossypinus* previously reported from the Blue Ridge Province of Georgia indicate specimens were misidentified. Neither species occurs in the Blue Ridge Province. The distribution of *P. polionotus* is restricted to south of a line from Greenville and Spartanburg counties, South Carolina, southeast to Clarke, County, Georgia and west to Dawson and Cherokee counties, Georgia. The distributional limit of *P. gossypinus* is south of a line from Lincoln and Wilkes counties, Georgia west to Dekalb and Fulton counties and then west and north to Polk, Floyd, and Dade counties.

Mice of the genus *Peromyscus* Gloger are among the most common and broadly studied small mammals in North America. Yet they are often difficult to distinguish on the basis of traditional morphological features, and consequently limits to their distribution are difficult to delineate. This is particularly true within Osgood's (1909) *P. leucopus* and *P. maniculatus* species groups (Hooper 1968, Laerm and Boone 1994). Frequently biologists depend upon range maps to rule out certain species; nevertheless, the correct identification of a taxon should be based upon morphological characteristics.

Numerous regional studies have been undertaken to provide mensural discrimination between species of *Peromyscus* (Choate 1973, Linzey et al. 1976, Choate et al. 1979, Stromberg 1979, Engstrom et al. 1982, Feldhamer et al. 1983, McDaniel et al. 1983). Laerm and Boone (1994) recently used discriminant analysis to maximally distinguish between the four *Peromyscus* species that occur in the southeastern United States: *P. gossypinus*, *leucopus*, *maniculatus*, and *polionotus*. Based upon reexamination and correct identification of specimens representing marginal records of *P. gossypinus* and *P. polionotus* with this discriminant analysis model, we questioned the accuracy of existing range maps and marginal records for *P. polionotus* (Wagner) and *P. gossypinus* (LeConte).

Peromyscus polionotus—A black-eyed, white *Peromyscus* was reported from Tallulah Falls, Rabun County, Georgia by Dice (1934:246) who identified the specimen as *P. polionotus polionotus*. This specimen was noteworthy because the pelage was entirely white, and the feet, toes, and nails lacked any pigment. However, as Dice noted, the eyes, eye-ring, and outer parts of the ears were dark. Tallulah Falls, in the Tallulah River Gorge, is at the southern edge of the Blue Ridge Province in Georgia. While not specifically indicated by Dice, this would have been the northernmost record of the species, from a locality well outside the previously described range (Osgood 1909) and in habitat from which the species had never been reported. Typically, *P. polionotus* is restricted to sandy soils and does not occur north of the middle Piedmont of Georgia.

Schwartz (1954) revised the *Peromyscus polionotus* complex and described several new subspecies. He provided external and cranial measurements of the six subspecies of *polionotus* he recognized and referred populations of *polionotus* in the northern portion of Georgia and South Carolina (essentially north of the Fall Line) to *P. p. colemani*. Schwartz (1954:568) commented on the Dice specimen which he ". . . presumed, on geographical grounds, to be assignable to *P. p. colemani*." Had Schwartz actually examined the Dice specimen, he probably would not have referred it to *P. polionotus*. However, Schwartz did not include the specimen in his mensural analysis. Thus, following Dice (1934) and Schwartz (1954), Hall and Kelson (1959), Golley (1962), and Hall (1981) continued to include the specimen as a marginal record for the species.

We questioned the identification of the Dice specimen because (1) it was collected in quartzite sheer rock walls and talus of the Tallulah River Gorge in the Blue Ridge Province and (2) at a locality some 100 km north of any other specimen record. We compared our measurements of the Dice specimen (University of Michigan Museum of Zoology 68496) to measurements provided by Schwartz (1954) for *P. p. colemani* and subjected it to our discriminant function (Laerm and Boone 1994). For 8 of the 11 characters examined by Schwartz (1954:565), the Dice specimen was larger than the range of the comparable measurements made on 11 *P. p. colemani* by Schwartz.

Visual comparison of means and ranges of measurements of 110 *P. polionotus* and 107 *P. leucopus,* which were used to develop a discriminant function for mensural discrimination between these and other southeastern *Peromyscus* spp. (measurements provided in Laerm and Boone 1994), to the Dice specimen indicates that it generally falls inside the range of measurements available for both *polionotus*

and *leucopus*. Our discriminant analysis, however, strongly suggest the Dice specimen to be *P. leucopus* ($P = 0.939$).

Concern over the correct identification of other northern marginal range records of *P. polionotus* in Georgia, South Carolina, and Alabama (see Schwartz 1954, Golley 1966, Wolfe and Rogers 1969, Hall 1981) prompted an examination of these specimens as well. We are satisfied that specimens reported from Jackson County, in extreme northeastern Alabama (Schwartz 1954, Hall and Kelson 1959, Hall 1981) are *P. polionotus*. Similarly, specimens from Greenville and Spartanburg counties South Carolina referred to by Schwartz (1954), Golley (1966), and Hall (1981) are correctly identified as *P. polionotus*.

Review of currently available distributional records for *P. polionotus* in Georgia now indicates the northernmost limit of its range should be amended to extend from Spartanburg and Greenville counties, South Carolina, southwest to Clarke County, Georgia, and west to Dawson and Cherokee counties, Georgia. Unfortunately, there are no records available for the Ridge and Valley or Cumberland Plateau provinces of Georgia west of Dawson and Cherokee counties (Fig. 1). The next records to the northwest are in Jackson County, Alabama (Hall 1981).

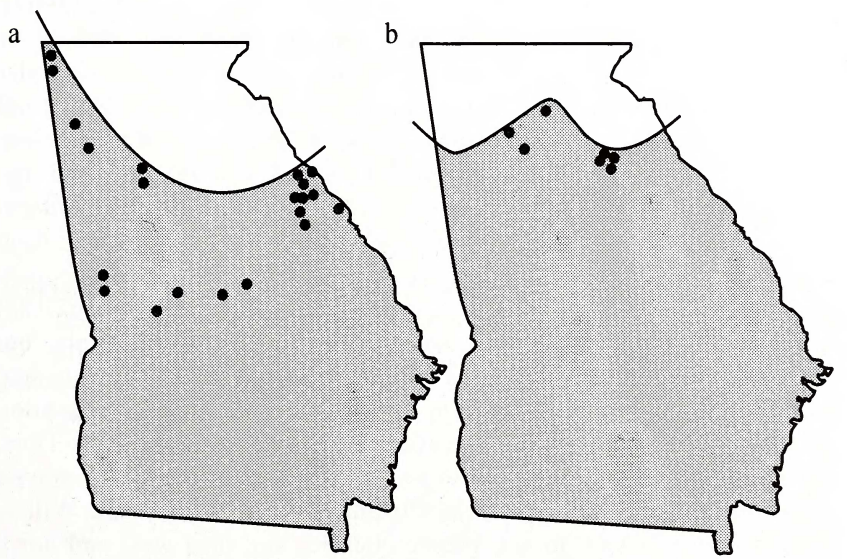

Fig. 1 Distribution of *Peromyscus gossypinus* (a) and *P. polionotus* (b) in Georgia. Dots represent northernmost distributional records only.

Peromyscus gossypinus—Hall and Kelson (1959), apparently following Osgood (1909), indicated the range of *P. gossypinus* in Georgia to be restricted to the Coastal Plain. At that time no specimens were known from the Piedmont, Blue Ridge, Ridge and Valley, or Cumberland Plateau provinces. Golley (1962) published new distributional records for Georgia and indicated (Golley 1962:124) specimens occurring in the southeastern portion of the Piedmont (including Columbia, Lincoln, McDuffie, and Wilkes counties), Ridge and Valley (Floyd, Gordon, and Polk counties), Cumberland Plateau (Dade County), extreme upper Piedmont (Habesham County) as well as the Blue Ridge Province (Rabun County). Subsequently, Wolfe and Linzey (1977) mapped the distribution of the species, apparently following Hall and Kelson (1959). Wolfe and Linzey (1977) do not cite Golley (1962); however, Hall (1981) does cite the Golley (1962) records and maps them accordingly, indicating their range extends into the extreme northeastern Piedmont and Blue Ridge provinces.

We used our discriminant function to examine virtually all *P. gossypinus* records from Georgia. Specimens from Dade County on the Cumberland Plateau and those from Floyd and Polk counties in the Ridge and Valley are *P. gossypinus* as noted by Golley (1962). We were unable to locate any museum specimens referred to by Golley (1962) from Habersham or Rabun counties either in University of Georgia Museum of Natural History collections or those of all other North American mammal collections housing specimens from Georgia. Examination of skin tags and records has not indicated any *P. gossypinus* from those counties to have been re-identified and/or relabeled. We are confident that the specimens of *P. gossypinus* from Ruban and Habersham counties in Golley (1962) were erroneously mapped because, in his verbal description of the range, Golley (1962:128) indicated *P. gossypinus* to be found ". . . on the coastal plain, but extending into the Piedmont on the eastern margin of the state and into the ridge and valley province on the west." He makes no mention of any records in the extreme northern Piedmont or Blue Ridge. Thus, the range of *P. gossypinus* in Georgia should be amended to extend across the middle portion of the Piedmont from Lincoln and Wilkes counties west to Dekalb and Fulton counties and then west and north into Polk, Floyd, and Dade counties in the Ridge and Valley and Cumberland Plateau (Fig. 1). This is essentially the range as previously depicted by Hall and Kelson (1959) and Wolfe and Linzey (1977).

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